REMARKS/ARGUMENTS

Claims 1 and 6 were rejected under section 102 as being anticipated by Aylor. Claim 1 has been amended to further recite that the paper web is moved in a curved path to dry the paper web and wherein at least one of the lamp protection plate and array of IR emitters is curved in a direct of the curved path. As shown in Fig. 6 of the present application, the paper web moves along the drying cylinder in a curved path, and in the preferred embodiment, the lamp protection plate as well as the array of emitters are also disposed in a curved manner adjacent the drum. Claim 1 only requires one of the lamp protection plate and array of IR emitters to be arranged in the curved manner; however, Aylor clearly fails to remotely disclose any such arrangement. Aylor discloses but a single IR lamp having only two infra red bulbs. The nearest structure disclosed in Aylor corresponding to any type of curved structure is the planar quartz lens 58, shown in Aylor at Figs. 5 and 6. The deficiencies of the prior art as clearly explained in the present application with respect to use of a planer lamp or protection element is all that is disclosed in Aylor. There is certainly no teaching or suggestion for modify the lens 58 in Aylor to make it curved shaped. Therefore, Aylor is deficient with respect to disclosing at least one of the lamp protection plate and array of IR emitters being curved. Claim 6 depends from claim 1, therefore this rejection under §102 should be withdrawn.

Claims 7-10 were rejected under §102 as being anticipated by Hamrin. Claim 7 has been amended to further recite that the array of IR emitters comprise a plurality of first quartz tubes and each tube having an IR heating element. Claim 7 has also been further amended to further recite that the lamp protection plate comprises a second plurality of quartz tubes arranged in an array. Thus, it is clear within claim 7 that the array of IR emitters and the lamp protection plate are not the same structure, and rather, there are two separate sets of quartz tubes, one being used with a heating element to create the array of IR emitters, and the second group of quartz tubes being used as a lamp protection plate. From the Examiner's analysis of the Hamrin reference, the Examiner appears to be saying that the tubing of the lamps is also the protective plate for the lamps and therefore, the protective plate is curved because the exterior surface of the lamp tubes are curved. However, as amended, Claim 7 can not be anticipated by Hamrin because Hamrin

clearly fails to disclose significant structure now clarified in the claim, namely, the two separate sets of quartz tubes. In the Hamrin reference, it simply discloses an overlapping arrangement of glass plates 9 located in corresponding grooves 10. Glass holders 8 are mounted below the mounting means 5 and glass plates 9 are inserted into the grooves. The lower holder part 11 along with the glass plates 9 extend in a plane parallel to and at a distance above the underlying paper web 12. The glass plates of Hamrin are not a plurality of quartz tubes as claimed in claim 7 and there is no other structure in Hamrin that remotely corresponds to what is now claimed in claim 7. Claims 8-10 depend from claim 7. Therefore, this rejection under §102 should be withdrawn.

Claims 11-14 were rejected under §102 as being anticipated by Hosoya. Although the Examiner does not specifically discuss this reference, it is believed that claims 11-14 also clearly distinguish over this reference. Claim 11 has been amended to further recite the step of providing a pivot arm to grip the tube at the upper most end and wherein rotating of the pivot arm thereby pulls the uppermost end so that the tube is bent. Hosoya discloses an apparatus for bending the glass tube into a U-shape using a bending drum. The glass tube in Hosoya is initially supported in a horizontal orientation, and a pair of chucks hold each end of the tube. A turning mechanism is used to bend the glass tube after being heated, more specifically, a bending drum is advanced into contact with a predetermined bending zone of the glass tube. The chucks are then turned about their respective turning points to move chucks towards one another, thereby winding the pre-determined bending zone about the bending drum. This method disclosed in Hosoya is quite distinct from what is claimed in claim 11, noting specifically that the claimed step of rotating the pivot arm thereby pulling the uppermost end is simply not a step that is disclosed in the Hosoya reference. Claims 12-14 depend on claim 11. Therefore, this rejection under §102 should be withdrawn.

Claims 15-19 and 22 were rejected under §102 as being anticipated by Nishigaki. Claim 15 has been amended to further recite that the apparatus includes rotating means for rotating and moving the gripped uppermost end of the tube wherein the tube is bent as the rotating means pulls the tube. In the Nishigaki reference, a drum is used for bending a heated glass tube into a

circular shape. A first driving device is coupled to the drum for moving the drum in a linear path, and a second driving device coupled to the drum rotates the drum at a controlled speed. Nishigaki does not have any rotating means for rotating and moving a gripped uppermost end of the tube so that the tube is softened in the vicinity of the heating means, and is bent as the rotating means pulls the tube. Claims 16-19 and 22 depend from claim 15. Therefore, this rejection under §102 should be withdrawn.

Claims 29, 30 and 32-34 were rejected under §102 as being anticipated by Secor. Claim 29 has been further amended to further recite that the array of curved lamps are curved in a direction of a curved path of the paper on the cylinder, and further that the curved lamp protection element comprises a plurality of quartz tubes. Thus, similar to claim 7, claim 29 requires two separate arrangements of quartz tubes, one being used for the lamps, and the other for the curved lamp protection element. The Examiner does not discuss the corresponding structure found in Secor, but Secor simply does not disclose the details of the claimed array of curved lamps and the curved lamp protection element. Fig. 7 in Secor discloses a heat lamp assembly 38 that includes an array of heat lamps 60. Each heat lamp is preferably an infra-red radiant lamp. However, there appears to be no structure in the Secor reference corresponding to the claimed curved lamp protection element comprising yet a different set of quartz tubes. Claim 30 and claims 32-34 depend directly or indirectly from claim 29. Therefore, this rejection under §102 should be withdrawn.

Claims 2-5 were rejected under §103 as being unpatentable over Aylor in view of Zellerman. Even if it were obvious to combine the teachings of these two references, Zellerman at least fails to cure the deficiencies in Aylor. Therefore, this rejection under §103 should be withdrawn.

Claims 20-21 were rejected under §103 as being unpatentable over Nishigaki in view of Katz. Even if it were obvious to combine the teachings of these two references, Katz fails to cure the deficiencies in Nishigaki. Therefore, this rejection under §103 should be withdrawn.

Claims 23-26 were rejected under §103 as being unpatentable over Nishigaki in view of Cojafex. For this combination of references, even if it were again obvious to combine the

teachings of these two references, Cojafex clearly fails to cure the deficiencies noted above with respect to the Nishigaki reference. Therefore, this rejection under §103 should also be withdrawn.

The application now appearing to be in form for allowance, early notification of same is respectfully requested. The Examiner is invited to contact the undersigned by telephone if doing so would expedite the resolution of this case.

Respectfully submitted,

SHERIDAN ROSS P.C.

By: _____

Brent P. Johnson
Registration No. 38,031
1560 Broadway, Suite 1200
Denver, Colorado 80202-5141
(303) 863-9700

Date: 12/14/06